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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,656	04/30/2001	John Mantegna	06975-208001/Processing 0	9011
26171	7590	03/09/2005	EXAMINER	
FISH & RICHARDSON P.C. 1425 K STREET, N.W. 11TH FLOOR WASHINGTON, DC 20005-3500			QURESHI, SHABANA	
			ART UNIT	PAPER NUMBER
			2155	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/844,656	Applicant(s) MANTEGNA, JOHN	
	Examiner Shabana Qureshi	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 15 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed on 15 October 2004 have been fully considered but they are not persuasive for the following reasons:

Applicant argues that neither Paradine nor Erkelins, nor the combination of the two, describes or suggests determining whether a microphone is properly connected to a real-time audio communication system and whether the microphone is not properly connected based on a comparison of values of auto-correlation function coefficients with predetermined values.

Examiner respectfully disagrees with Applicant's allegations. Paradine teaches the suspension of transmission between the microphone and the device it is communicating with when a predetermined value is reached (column 6, lines 27-43; column 7, lines 1-23). In the cited portions, Paradine teaches values determined by sampling to detect activity or the absence of activity. Paradine teaches the termination of the connection if there is no activity. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that if the microphone connection is terminated, microphone connection termination will be assumed. Although Paradine does not explicitly state that the sampling values are autocorrelation coefficients, Erkelens et al teaches the determining of auto-correlation coefficients of and audio sample (page 116). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the auto-correlation coefficients taught by Erkelens in the teachings of Paradine et al so to perform linear prediction in order to determine whether the signal is a voice signal (Erkelens et al, page 116; Paradine et al, page 5, lines 15-25).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paradine et al (US Patent No. 6,049,565) in view of Erkelens et al¹.

As per claims 1, 2 and 3, Paradine et al teach the method, computer program, and computer system for detecting whether a microphone is connected to a real-time audio communication system of a computer comprising:

- recording all audio sample through the real-time audio communication system (column 4, lines 26-35);
- filtering a DC component out of the audio sample (column 4, lines 36-45);
- comparing the filtered audio sample parameters to predetermined values (column 6, lines 17-20); and
- determining whether a microphone is properly connected to the real-time audio communication system based on a relationship between the values of the sample's parameters the predetermined values (column 5, lines 16-25, column 6, lines 7-25).

Although Paradine teaches that there are many methods that allow one to determine whether or not the sample is a voice sample (column 5, lines 16-25), Paradine et al do not go into

¹ J.S. Erkelens and P.M.T. Broersen, "Bias Propagation in the Autocorrelation Method of Linear Prediction", IEEE Trans. on Speech and Audio, vol. 5, pp. 116-119, 1997.

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detail about the parameters involved, such as auto-correlation coefficients of the filtered audio sample. However, Erkelens et al teaches the determining of auto-correlation coefficients of and audio sample (page 116). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the auto-correlation coefficients taught by Erkelens in the teachings of Paradine et al to perform linear prediction in order to determine whether the signal is a voice signal (Erkelens et al, page 116; Paradine et al, page 5, lines 15-25).

Paradine et al also do not explicitly state that the determination that a signal is a voice signal results in the determination that a microphone is properly connected to the real-time audio communication system. However, official notice is taken that it would have been obvious to one of ordinary skill in the art at the time of the invention that the detection of a voice signal means that the microphone is properly connected, because if it was not properly connected, there would be no voice signal.

Paradine teaches the suspension of transmission between the microphone and the device it is communicating with when a predetermined value is reached (column 6, lines 27-43; column 7, lines 1-23). In the cited portions, Paradine teaches values determined by sampling to detect activity or the absence of activity. Paradine teaches the termination of the connection if there is no activity. Paradine does not explicitly state that the sampling values directly determine that the sampling values indicate that the microphone is not connected. However, therefore official notice is taken that it would be obvious to one of ordinary skill in the art at the time the invention was made that if the microphone connection is terminated, microphone connection termination will be assumed.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (571) 272-3990. The examiner can normally be reached on Monday - Thursday, 9:30 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shabana Qureshi
Examiner
Art Unit 2155

SQ
March 6, 2005


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER